

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=12; day=10; hr=10; min=32; sec=40; ms=917;
]

=====

Application No: 10550958 Version No: 1.0

Input Set:

Output Set:

Started: 2008-12-03 17:15:41.121
Finished: 2008-12-03 17:15:41.875
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 754 ms
Total Warnings: 3
Total Errors: 0
No. of SeqIDs Defined: 5
Actual SeqID Count: 5

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)

SEQUENCE LISTING

<110> Pohl, Jens
Bechtold, Rolf
Kruse, Michael

<120> Osteoinductive Materials

<130> 2923-725

<140> 10550958
<141> 2008-12-03

<150> PCT/EP04/003238

<151> 2004-03-26

<160> 5

<170> PatentIn version 3.5

<210> 1
<211> 2703
<212> DNA
<213> Homo sapiens

<220>

<221> CDS
<222> (640)..(2142)

<220>

<221> misc_feature
<222> (2032)..(2034)
<223> n is a, c, g, or t

<400> 1
ccatggcctc gaaaggcgag cggtgatttt tttcacataa atatatcgca cttaaatgag 60
tttagacagc atgacatcag agagtaatta aattggtttg ggttggaatt ccgtttccaa 120
ttcctgagtt cagggttgta aaagattttt ctgagcacct gcaggcctgt gagtgtgtgt 180
gtgtgtgtgt gtgtgtgtgt gtgtgtgtga agtattttca ctggaaagga ttcaaaacta 240
ggggggaaaaaa aaaaactgga gcacacagggc agcattacgc cattcttcct tcttggaaaa 300
tccctcagcc ttatacaagc ctccttcaag ccctcagtca gttgtgcagg agaaaggggg 360
cggttggctt tctccttca agaacgagtt atttcagct gctgactgga gacggtgac 420
gtctggatac gagagcattt ccactatggg actggataca aacacacacc cggcagactt 480
caagagtctc agactgagga gaaagcctt cttctgctg ctactgctgc tgccgctgct 540
tttggaaagtc cactccttcc atggtttttc ctgccaaacc agaggcacct ttgctgctgc 600

cgctgttctc tttggtgtca ttccagcggtt ggccagagg atg aga ctc ccc aaa 654
 Met Arg Leu Pro Lys
 1 5

 ctc ctc act ttc ttg ctt tgg tac ctg gct tgg ctg gac ctg gaa ttc 702
 Leu Leu Thr Phe Leu Leu Trp Tyr Leu Ala Trp Leu Asp Leu Glu Phe
 10 15 20

 atc tgc act gtg ttg ggt gcc cct gac ttg ggc cag aga ccc cag ggg 750
 Ile Cys Thr Val Leu Gly Ala Pro Asp Leu Gly Gln Arg Pro Gln Gly
 25 30 35

 acc agg cca gga ttg gcc aaa gca gag gcc aag gag agg ccc ccc ctg 798
 Thr Arg Pro Gly Leu Ala Lys Ala Glu Ala Lys Glu Arg Pro Pro Leu
 40 45 50

 gcc cgg aac gtc ttc agg cca ggg ggt cac agc tat ggt ggg ggg gcc 846
 Ala Arg Asn Val Phe Arg Pro Gly Gly His Ser Tyr Gly Gly Gly Ala
 55 60 65

 acc aat gcc aat gcc agg gca aag gga ggc acc ggg cag aca gga ggc 894
 Thr Asn Ala Asn Ala Arg Ala Lys Gly Gly Thr Gly Gln Thr Gly Gly
 70 75 80 85

 ctg aca cag ccc aag aag gat gaa ccc aaa aag ctg ccc ccc aga ccg 942
 Leu Thr Gln Pro Lys Lys Asp Glu Pro Lys Lys Leu Pro Pro Arg Pro
 90 95 100

 ggc ggc cct gaa ccc aag cca gga cac cct ccc caa aca agg cag gct 990
 Gly Gly Pro Glu Pro Lys Pro Gly His Pro Pro Gln Thr Arg Gln Ala
 105 110 115

 aca gcc cgg act gtg acc cca aaa gga cag ctt ccc gga ggc aag gca 1038
 Thr Ala Arg Thr Val Thr Pro Lys Gly Gln Leu Pro Gly Gly Lys Ala
 120 125 130

 ccc cca aaa gca gga tct gtc ccc agc tcc ttc ctg ctg aag aag gcc 1086
 Pro Pro Lys Ala Gly Ser Val Pro Ser Ser Phe Leu Leu Lys Lys Ala
 135 140 145

 agg gag ccc ggg ccc cca cga gag ccc aag gag ccg ttt cgc cca ccc 1134
 Arg Glu Pro Gly Pro Pro Arg Glu Pro Lys Glu Pro Phe Arg Pro Pro
 150 155 160 165

 ccc atc aca ccc cac gag tac atg ctc tcg ctg tac agg acg ctg tcc 1182
 Pro Ile Thr Pro His Glu Tyr Met Leu Ser Leu Tyr Arg Thr Leu Ser
 170 175 180

 gat gct gac aga aag gga ggc aac agc agc gtg aag ttg gag gct ggc 1230
 Asp Ala Asp Arg Lys Gly Gly Asn Ser Ser Val Lys Leu Glu Ala Gly
 185 190 195

 ctg gcc aac acc atc acc agc ttt att gac aaa ggg caa gat gac cga 1278
 Leu Ala Asn Thr Ile Thr Ser Phe Ile Asp Lys Gly Gln Asp Asp Arg
 200 205 210

 ggt ccc gtg gtc agg aag cag agg tac gtg ttt gac att agt gcc ctg 1326

Gly Pro Val Val Arg Lys Gln Arg Tyr Val Phe Asp Ile Ser Ala Leu			
215	220	225	
gag aag gat ggg ctg ctg ggg gcc gag ctg cggt atc ttg cggt aag aag			1374
Glu Lys Asp Gly Leu Leu Gly Ala Glu Leu Arg Ile Leu Arg Lys Lys			
230	235	240	245
ccc tcg gac acg gcc aag cca gcg gcc ccc gga ggc ggg cggt gct gcc			1422
Pro Ser Asp Thr Ala Lys Pro Ala Ala Pro Gly Gly Arg Ala Ala			
250	255	260	
cag ctg aag ctg tcc agc tgc ccc agc ggc cggt cag ccgt gcc tcc ttg			1470
Gln Leu Lys Leu Ser Ser Cys Pro Ser Gly Arg Gln Pro Ala Ser Leu			
265	270	275	
ctg gat gtg cgc tcc gtg cca ggc ctg gac gga tct ggc tgg gag gtg			1518
Leu Asp Val Arg Ser Val Pro Gly Leu Asp Gly Ser Gly Trp Glu Val			
280	285	290	
ttc gac atc tgg aag ctc ttc cga aac ttt aag aac tcg gcc cag ctg			1566
Phe Asp Ile Trp Lys Leu Phe Arg Asn Phe Lys Asn Ser Ala Gln Leu			
295	300	305	
tgc ctg gag ctg gag gcc tgg gaa cgg ggc agg gcc gtg gac ctc cgt			1614
Cys Leu Glu Leu Glu Ala Trp Glu Arg Gly Arg Ala Val Asp Leu Arg			
310	315	320	325
ggc ctg ggc ttc gac cgc gcc ccc cgg cag gtc cac gag aag gcc ctg			1662
Gly Leu Gly Phe Asp Arg Ala Ala Arg Gln Val His Glu Lys Ala Leu			
330	335	340	
ttc ctg gtg ttt ggc cgc acc aag aaa cgg gac ctg ttc ttt aat gag			1710
Phe Leu Val Phe Gly Arg Thr Lys Lys Arg Asp Leu Phe Phe Asn Glu			
345	350	355	
att aag gcc cgc tct ggc cag gac gat aag acc gtg tat gag tac ctg			1758
Ile Lys Ala Arg Ser Gly Gln Asp Asp Lys Thr Val Tyr Glu Tyr Leu			
360	365	370	
ttc agc cag cgg cga aaa cgg cgg gcc cca ctg gcc act cgc cag ggc			1806
Phe Ser Gln Arg Arg Lys Arg Arg Ala Pro Leu Ala Thr Arg Gln Gly			
375	380	385	
aag cga ccc agc aag aac ctt aag gct cgc tgc agt cgg aag gca ctg			1854
Lys Arg Pro Ser Lys Asn Leu Lys Ala Arg Cys Ser Arg Lys Ala Leu			
390	395	400	405
cat gtc aac ttc aag gac atg ggc tgg gac gac tgg atc atc gca ccc			1902
His Val Asn Phe Lys Asp Met Gly Trp Asp Asp Trp Ile Ile Ala Pro			
410	415	420	
ctt gag tac gag gct ttc cac tgc gag ggg ctg tgc gag ttc cca ttg			1950
Leu Glu Tyr Glu Ala Phe His Cys Glu Gly Leu Cys Glu Phe Pro Leu			
425	430	435	
cgc tcc cac ctg gag ccc acg aat cat gca gtc atc cag acc ctg atg			1998
Arg Ser His His Leu Glu Pro Thr Asn His Ala Val Ile Gln Thr Leu Met			

440	445	450	
aac tcc atg gac ccc gag tcc aca cca ccc acc nnn tgt gtg ccc acg			2046
Asn Ser Met Asp Pro Glu Ser Thr Pro Pro Thr Xaa Cys Val Pro Thr			
455	460	465	
cgg ctg agt ccc atc agc atc ctc ttc att gac tct gcc aac aac gtg			2094
Arg Leu Ser Pro Ile Ser Ile Leu Phe Ile Asp Ser Ala Asn Asn Val			
470	475	480	485
gtg tat aag cag tat gag gac atg gtc gtg gag tcg tgt ggc tgc agg			2142
Val Tyr Lys Gln Tyr Glu Asp Met Val Val Glu Ser Cys Gly Cys Arg			
490	495	500	
tagcagcaact ggccctctgt ctccctgggt ggcacatccc aagagccct tcctgcactc			2202
ctggaatcac agaggggtca ggaagctgtg gcaggagcat ctacacagct tgggtgaaag			2262
gggattccaa taagcttgct cgctctctga gtgtgacttg ggctaaaggc cccctttat			2322
ccacaagtcc ccctggctga ggattgctgc ccgtctgctg atgtgaccag tggcaggcac			2382
aggtccaggg agacagactc tgaatggac tgagtccag gaaacagtgc tttccatga			2442
gactcagccc accatttctc ctcacctggg cttctcagc ctctggactc tcctaagcac			2502
ctctcaggag agccacaggt gccactgcct cctcaaatac catttgtgcc tggtgacttc			2562
ctgtccctgg gacagtttag aagctgactg ggcaagagtg ggagagaaga ggagaggct			2622
tggatagagt tgaggagtgt gaggctgtta gactgttaga tttaatgtt tattgttag			2682
ataaaaagca aaactgtgcc t			2703

<210> 2
<211> 501
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<222> (465)..(465)
<223> The 'Xaa' at location 465 stands for Lys, Asn, Arg, Ser, Thr, Ile, Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, Tyr, Trp, Cys, or Phe.

<400> 2

Met Arg Leu Pro Lys Leu Leu Thr Phe Leu Leu Trp Tyr Leu Ala Trp			
1	5	10	15

Leu Asp Leu Glu Phe Ile Cys Thr Val Leu Gly Ala Pro Asp Leu Gly			
20	25	30	

Gln Arg Pro Gln Gly Thr Arg Pro Gly Leu Ala Lys Ala Glu Ala Lys
35 40 45

Glu Arg Pro Pro Leu Ala Arg Asn Val Phe Arg Pro Gly Gly His Ser
50 55 60

Tyr Gly Gly Gly Ala Thr Asn Ala Asn Ala Arg Ala Lys Gly Gly Thr
65 70 75 80

Gly Gln Thr Gly Gly Leu Thr Gln Pro Lys Lys Asp Glu Pro Lys Lys
85 90 95

Leu Pro Pro Arg Pro Gly Gly Pro Glu Pro Lys Pro Gly His Pro Pro
100 105 110

Gln Thr Arg Gln Ala Thr Ala Arg Thr Val Thr Pro Lys Gly Gln Leu
115 120 125

Pro Gly Gly Lys Ala Pro Pro Lys Ala Gly Ser Val Pro Ser Ser Phe
130 135 140

Leu Leu Lys Lys Ala Arg Glu Pro Gly Pro Pro Arg Glu Pro Lys Glu
145 150 155 160

Pro Phe Arg Pro Pro Pro Ile Thr Pro His Glu Tyr Met Leu Ser Leu
165 170 175

Tyr Arg Thr Leu Ser Asp Ala Asp Arg Lys Gly Gly Asn Ser Ser Val
180 185 190

Lys Leu Glu Ala Gly Leu Ala Asn Thr Ile Thr Ser Phe Ile Asp Lys
195 200 205

Gly Gln Asp Asp Arg Gly Pro Val Val Arg Lys Gln Arg Tyr Val Phe
210 215 220

Asp Ile Ser Ala Leu Glu Lys Asp Gly Leu Leu Gly Ala Glu Leu Arg
225 230 235 240

Ile Leu Arg Lys Lys Pro Ser Asp Thr Ala Lys Pro Ala Ala Pro Gly
245 250 255

Gly Gly Arg Ala Ala Gln Leu Lys Leu Ser Ser Cys Pro Ser Gly Arg

260

265

270

Gln Pro Ala Ser Leu Leu Asp Val Arg Ser Val Pro Gly Leu Asp Gly
275 280 285

Ser Gly Trp Glu Val Phe Asp Ile Trp Lys Leu Phe Arg Asn Phe Lys
290 295 300

Asn Ser Ala Gln Leu Cys Leu Glu Leu Glu Ala Trp Glu Arg Gly Arg
305 310 315 320

Ala Val Asp Leu Arg Gly Leu Gly Phe Asp Arg Ala Ala Arg Gln Val
325 330 335

His Glu Lys Ala Leu Phe Leu Val Phe Gly Arg Thr Lys Lys Arg Asp
340 345 350

Leu Phe Phe Asn Glu Ile Lys Ala Arg Ser Gly Gln Asp Asp Lys Thr
355 360 365

Val Tyr Glu Tyr Leu Phe Ser Gln Arg Arg Lys Arg Arg Ala Pro Leu
370 375 380

Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala Arg Cys
385 390 395 400

Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp Asp Asp
405 410 415

Trp Ile Ile Ala Pro Leu Glu Tyr Ala Phe His Cys Glu Gly Leu
420 425 430

Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His Ala Val
435 440 445

Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro Pro Thr
450 455 460

Xaa Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe Ile Asp
465 470 475 480

Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val Val Glu
485 490 495

Ser Cys Gly Cys Arg

500

<210> 3
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> consensus sequence

<220>
<221> REPEAT
<222> (3)..(3)
<223> Xaa=(Y)25-29 with Y=any amino acid including cysteine

<220>
<221> VARIANT
<222> (5)..(7)
<223> Xaa=Y with Y=any amino acid including cysteine

<220>
<221> REPEAT
<222> (9)..(9)
<223> Xaa=X with X=any amino acid except cysteine

<220>
<221> VARIANT
<222> (10)..(10)
<223> Xaa=X with X=any amino acid except cysteine

<220>
<221> REPEAT
<222> (12)..(12)
<223> Xaa=(Y)27-34 with Y=any amino acid including cysteine

<220>
<221> VARIANT
<222> (14)..(14)
<223> Xaa=Y with Y=any amino acid including cysteine

<400> 3

Cys Cys Xaa Cys Xaa Xaa Xaa Cys Xaa Xaa Cys Xaa Cys Xaa Cys
1 5 10 15

<210> 4
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> consensus sequence

<220>

<221> REPEAT

<222> (2)...(2)

<223> Xaa=(Y)28 with Y=any amino acid including cysteine

<220>

<221> VARIANT

<222> (4)...(6)

<223> Xaa=Y with Y=any amino acid including cysteine

<220>

<221> REPEAT

<222> (8)...(8)

<223> Xaa=(Y)30-32 with Y=any amino acid including cysteine

<220>

<221> VARIANT

<222> (9)...(9)

<223> Xaa=X with X=any amino acid except cysteine

<220>

<221> REPEAT

<222> (11)...(11)

<223> Xaa=(Y)31 with Y=any amino acid including cysteine

<220>

<221> VARIANT

<222> (13)...(13)

<223> Xaa=Y with Y=any amino acid including cysteine

<400> 4

Cys Xaa Cys Xaa Xaa Xaa Cys Xaa Xaa Cys Xaa Cys Xaa Cys
1 5 10

<210> 5

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> consensus sequence

<220>

<221> REPEAT

<222> (2)...(2)

<223> Xaa=(X)28 with X=any amino acid except cysteine

<220>

<221> VARIANT

<222> (4)...(6)

<223> Xaa=X with X=any amino acid except cysteine

<220>
<221> REPEAT
<222> (8)..(8)
<223> Xaa=(X)31-33 with X=any amino acid except cysteine

<220>
<221> REPEAT
<222> (10)..(10)
<223> Xaa=(X)31 with X=any amino acid except cysteine

<220>
<221> VARIANT
<222> (12)..(12)
<223> Xaa=X with X=any amino acid except cysteine

<400> 5

Cys Xaa Cys Xaa Xaa Xaa Cys Xaa Cys Xaa Cys Xaa Cys
1 5 10